

# "That's Not Supposed to Happen, Sir"

By Lt. Nicholas Brandt

**A**nother typical IMC winter day in Souda Bay, and ops had scheduled us to fly a six-hour mission in our trusty EP-3. Because it was a short mission, I left behind the 2P so he could study, so it was just the 3P and me. The 3P was on his first squadron detachment, but he just had come off a SERGRAD tour, and he almost had as much flight time as I did. It was his turn to land, so he remained in the left seat. After a quiet, morning mission, keeping the world safe for democracy, we looked forward to the afternoon off.

ATC cleared us direct to the Souda VOR and down to 11,000 feet. My 3P just had started a power-on descent to quickly get us there, when I heard two other aircraft, a P-3C and a Greek airliner, contact approach from positions closer to the airfield than us. I anticipated getting slotted number three for the approach, and, because we were in no hurry to enter holding, I told my copilot to throttle back. We entered IMC as we descended through FL140. Things got interesting as we leveled off at 11,000 feet and copied our holding clearance.

We still were popeye as we hit 11,000 feet. All of a sudden, a loud "bang" shook the mighty Aries II, followed by the worst aircraft vibe I'd ever felt. As I slammed the power levers forward to initiate climbout, I thought, "Oh my God, we just mowed down a mountain goat."

The 3P also pushed up the power; he suspected wind-shear. All four cherry lights illuminated, indicating max power and then some. The flight engineer, who suspected control-surface damage because of icing, shouted, "Sir, we need to get on the ground, now!"

It nearly was impossible to hear each other over the vibration, even with ICS at full volume. It took only a

few seconds to climb to 12,000 feet, where we leveled off to assess the situation. After a few seconds of thought, I realized we possibly couldn't have struck a mountain. The highest peak on Crete is only 8,200 feet, and we were at least 20 miles from it. What else could have happened? While we pondered that question, I declared an emergency and received clearance to commence the VOR-DME approach to Souda Bay.

As certain disaster loomed, it was time to think, and quickly. NATOPS contains a warning about significant airframe vibration, combined with propeller-pump lights or external-fluid leaks, doesn't it? But, we didn't have any lights or leaks. All our engine instruments tracked normally as we moved the power levers, and rpm was 100 percent across the board. However, NATOPS also states that airframe vibration may be accompanied by vibrations in the power-lever and/or e-handle. We felt each in turn, but they all rattled at about the same level. The entire plane seemed about to shake itself apart.

We still were at least 10 minutes from landing, and the vibration was getting worse. We were desperate to find something we could turn off to make it stop. If we couldn't stop it, I wasn't sure we'd make the runway in one piece. The SEVAL (the senior NFO in the EP-3) coordinated the aft observers to check the wings. While up front, we again looked for fluid leaks on the nacelles. I saw no leaks on the starboard wing, but something else caught my attention. The No. 3 propeller was spinning oddly, wobbling like an off-balance washing machine.

I told the flight engineer about the prop and called for an emergency shutdown of No. 3. Without hesitation, he shouted, "Check me on No. 3."

"You have three." I replied, completing the required confirmation to shut down an engine on a P-3.

The vibration stopped immediately, but it seemed to take an eternity for the prop to stop spinning; I soon saw why. Three of the blades had feathered normally, blade edge to the wind, but one was angled flat, like a speed brake. By this time, we had commenced the approach, the calamity had stopped, and the plane seemed eerily quiet.

Control was no problem. Rather than perform a seat swap to the left seat, which would have involved sticking a non-pilot in the seat while IMC during an emergency, I flew the approach from the right seat. We broke out of the clouds on final, at 3,000 feet, and made an uneventful three-engine landing. As we taxied to the ramp, a cast of maintainers gathered in force. They all pointed and smiled at the unfeathered prop blade. More than once I heard, "That's not supposed to happen, sir." Well, maybe not, but I had a date with the flight doc to remove a seat cushion that told me otherwise.

We were fortunate the emergency happened close to the airfield, and we already had completed the approach checklist. The 24-man crew had set condition-five for landing and had strapped into their seats.

Hamilton Standard, the manufacturer of the propeller, reported only one other similar incident. It had hap-

pened on an Air Force C-130, which uses the same engines as the P-3. In that case, the propeller separated from the engine. Had we been any faster or higher, the same fate would have befallen us. When propellers depart P-3s, they tend to do a lot of collateral damage, severely limiting the aircrew's options. Had this problem occurred in the middle of a long mission, neither the prospect of landing in hostile territory nor a forced ditch would have seemed appealing.

We also learned a few things. Our NATOPS has undergone continuous refinement for 40 years, and, as they say, it is "written in blood." Its preface will tell you that procedures are only guides to action, "...not a substitute for sound judgment." NATOPS can't possibly cover everything that can fail on an aircraft, especially an older plane like the P-3. Increasingly, we see malfunctions and emergencies NATOPS doesn't address. When something unusual happens, take stock of everything you can, both inside and outside the aircraft. The specific malfunction and the situation may require modification of NATOPS procedures. You won't always be in as favorable a position as we were when the unexpected happens.



Lt. Brandt flies with VQ-2.

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